

30. The electrical connection of claim 29 wherein the film comprises a plastic polymer.

31. The electrical connection of claim 29 wherein at least a portion of each wire strand between the first end and the second end is embedded in said film.

32. The electrical connection of claim 29 further comprising an adhesive layer operable to couple the wirefilm to the first component and the second component.

33. The electrical connection of claim 29 further comprising a film tape carrier removably coupled to the film, the film tape carrier operable to advance the film from a first position to a second position.

REMARKS

Claim 1 has been amended by adding the subject matter of claim 3 thereto, claims 3 and 5 have been cancelled without prejudice, and claims 21 to 33 have been added, claim 21 adding the subject matter of claim 5 to claim 1 and claims 26 being the same as claims 1, 2, 4, 6 and 21 to 25 respectively except that these claims define the connection. Claims 1, 2, 4, 6 and 21 to 33 are now active in this application. Please charge any costs to Deposit Account No. 20--0668.

The specification has been amended to properly claim priority as required.

Claim 1 has been amended to overcome the rejection under 35 U.S.C. 112, second paragraph.

Claims 1, 2 and 4 were rejected under 35 U.S.C.102(b) as being anticipated by Nakano et al. (U.S. 4,857,671). The rejection is respectfully traversed.

Claim 1 requires, among other features, a wirefilm for electrically interconnecting a first component having a plurality of first bonding sites and a second component having a plurality of

second bonding sites, the wirefilm having a plurality of wire strands, each wire strand having a first end and a second end, each wire strand coupled to the film according to the relative positions of the first component and the second component, the first end of each wire strand operable to contact a first bonding site and the second end of each wire strand operable to contact a second bonding site to electrically interconnect the first component and the second component, at least a portion of each wire strand between the first end and the second end being embedded in said film. No such structure is taught or suggested by Nakano et al. either alone or in the total combination as claimed.

Claims 2 to 4 depend from claim 1 and therefore define patentably over Nakano et al. for at least the reasons presented above with reference to claim 1.

Claim 4 further limits claim 1 by requiring an adhesive layer operable to couple the wirefilm to the first component and the second component. No such structure is taught or suggested by Nakano et al. It is respectfully submitted that the portion of Nakano et al. referred to in the Office action relates to bonding between the wire strands and the components as opposed to the adhesive action as claimed and shown, for example, by element 21 in Fig. 3a.

The rejections of claims 1 and 2 under 35 U.S.C. 102(b) as being anticipated by Galli (U.S. 3,724,068) and Tsuji (U.S. 5,530,282) are now moot in view of the amendments thereto.

Claims 1 to 3 were rejected under 35 U.S.C. 102(b) as being anticipated by Laakso et al. (U.S. 4,650,545). The rejection is respectfully traversed. The subject matter of prior claim 3 has been incorporated into claim 1 and is not found in Laakso et al. The subject matter of claim 3 is not seen to be disclosed or suggested at column 2, lines 1 to 3 of Laakso et al.

Claims 1, 2 and 5 were rejected under 35 U.S.C. 102(b) as being anticipated by Yamasaki et al. The rejection is respectfully traversed. Claim 21 in essentially prior claim 5 and requires,

among other features, a plurality of wire strands, each wire strand having a first end and a second end, each wire strand coupled to the film according to the relative positions of the first component and the second component, the first end of each wire strand operable to contact a first bonding site and the second end of each wire strand operable to contact a second bonding site to electrically interconnect the first component and the second component, each wire strand comprising a relaxed loop portion relaxed and located entirely and extending entirely between the first end and the second end, the loop portion spaced apart from said film. The loop of Yamasaki et al. is not relaxed entirely between the first and second end due to the member 10 in contact therewith. There is no relaxation except possibly in the corner at the rounded portion 32 which is also not a loop and would not be considered to be a loop but for prior reference to the subject disclosure.

Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji. The rejection is respectfully traversed.

Claim 6 depends from claim 1. Accordingly, the arguments presented above with reference to claim 1 apply as well to claim 6.

Claims 22 to 25 depend from claim 21 and therefore define patentably over the references discussed above for at least the reasons presented as to claim 21.

In addition, claim 22 further limits claim 21 by requiring that the film comprise a plastic polymer. No such combination is taught or suggested by any of the references applied against claim 21.

Claim 23 further limits claim 21 by requiring that at least a portion of each wire strand between the first end and the second end be embedded in the film. No such combination is taught or suggested by any of the references applied against claim 21.

Claim 24 further limits claim 21 by requiring an adhesive layer operable to couple the wirefilm to the first component and the second component. No such combination is taught or suggested by any of the references applied against claim 21.

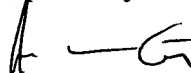
Claim 25 further limits claim 21 by requiring a film tape carrier removably coupled to the film, the film tape carrier operable to advance the film from a first position to a second position. No such combination is taught or suggested by any of the references applied against claim 21.

Claim 26 to 28 are the same as claims 1, 2 and 4 except that they related to an electrical connection and further specifically include the first and second components, the bonding sites thereon and the connection via the wirefilm to these bonding sites. It follows that the arguments presented above with reference to claims 1, 2 and 4 apply as well to these claims.

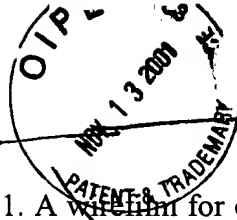
Claim 29 to 33 are the same as claims 21 to 25 except that they related to an electrical connection and further specifically include the first and second components, the bonding sites thereon and the connection via the wirefilm to these bonding sites. It follows that the arguments presented above with reference to claims 21 to 25 apply as well to these claims.

In view of the above remarks and amendment, favorable reconsideration and allowance are respectfully requested.

Respectfully submitted,



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1. A wirefilm for electrically interconnecting a first component having a plurality of first bonding sites and a second component having a plurality of second bonding sites, the wirefilm comprising:

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a substantially planarizable film; and
a plurality of wire strands, each wire strand having a first end and a second end, each wire strand coupled to the film according to the relative positions of the first component and the second component, the first end of each wire strand operable to contact a first bonding site and the second end of each wire strand operable to contact a second bonding site to electrically interconnect the first component and the second component, at least a portion of each wire strand between the first end and the second end being embedded in said film.

21. A wirefilm for electrically interconnecting a first component having a plurality of first bonding sites and a second component having a plurality of second bonding sites, the wirefilm comprising:

a substantially planarizable film; and

a plurality of wire strands, each wire strand having a first end and a second end, each wire strand coupled to the film according to the relative positions of the first component and the second component, the first end of each wire strand operable to contact a first bonding site and the second end of each wire strand operable to contact a second bonding site to electrically interconnect the first component and the second component, each wire strand comprising a loop portion relaxed and located entirely between the first end and the second end, the loop portion spaced apart from said film.

22. The wirefilm of claim 21 wherein the film comprises a plastic polymer.

23. The wirefilm of claim 21 wherein at least a portion of each wire strand between the first end and the second end is embedded in said film.

24. The wirefilm of claim 21 further comprising an adhesive layer operable to couple the wirefilm to the first component and the second component.

25. The wirefilm of claim 21 further comprising a film tape carrier removably coupled to the film, the film tape carrier operable to advance the film from a first position to a second position.

26. An electrical connection between a first component and a second component with a wirefilm which comprises:

a first component having first bonding sites thereon;

a second component having second bonding sites thereon; and

a wirefilm for electrically interconnecting bonding sites of said first component and said second component sites, the wirefilm comprising:

a substantially planarizable film; and

a plurality of wire strands, each wire strand having a first end and a second end, each wire strand coupled to the film according to the relative positions of the first component and the second component, the first end of each wire strand operable to contact a first bonding site and the second end of each wire strand operable to contact a second bonding site to electrically interconnect the first component and the second component, at least a portion of each wire strand between the first end and the second end being embedded in said film.

27. The electrical connection of claim 26 further comprising an adhesive layer operable to couple the wirefilm to the first component and the second component.

28. The electrical connection of claim 26 further comprising a film tape carrier removably coupled to the film, the film tape carrier operable to advance the film from a first position to a second position.

29. An electrical connection between a first component and a second component with a wirefilm which comprises:

- a first component having first bonding sites thereon;

- a second component having second bonding sites thereon; and

- a wirefilm for electrically interconnecting bonding sites of said first component and said second component sites, the wirefilm comprising:

 - a substantially planarizable film; and

 - a plurality of wire strands, each wire strand having a first end and a second end, each wire strand coupled to the film according to the relative positions of the first component and the second component, the first end of each wire strand operable to contact a first bonding site and the second end of each wire strand operable to contact a second bonding site to electrically interconnect the first component and the second component, each wire strand comprising a loop portion relaxed and located entirely between the first end and the second end, the loop portion spaced apart from said film.

30. The electrical connection of claim 29 wherein the film comprises a plastic polymer.

31. The electrical connection of claim 29 wherein at least a portion of each wire strand between the first end and the second end is embedded in said film.

32. The electrical connection of claim 29 further comprising an adhesive layer operable to couple the wirefilm to the first component and the second component.

33. The electrical connection of claim 29 further comprising a film tape carrier removably coupled to the film, the film tape carrier operable to advance the film from a first position to a second position.

"CROSS REFERENCE TO PRIOR APPLICATIONS

This application is a division of Serial No. 08/961,875 which claims priority under 35 U.S.C. 119(e) from Provisional Application Serial No. 60/031,371, filed November 19, 1986."